



U.S. NAVAL ACADEMY SAILING PROGRAM



Offshore



Intercollegiate



CSNTS



P-100

To ensure safety at sea, the best that science can devise and that naval organization can provide must be regarded only as an aide and never as a substitute for good seamanship, self reliance, and a sense of ultimate responsibility which are the first requisites in a seaman and naval officer

Fleet Admiral Chester W. Nimitz
Letter to the Pacific Fleet

Requirements & Lessons Learned

CDR Gerard VandenBerg
Deputy Director, Naval Academy Sailing



Outline

- Overarching concepts
- Navigation related incidents
- Contact management and avoidance related incidents
- Weather and sail handling related incidents
- Admiral Burke...

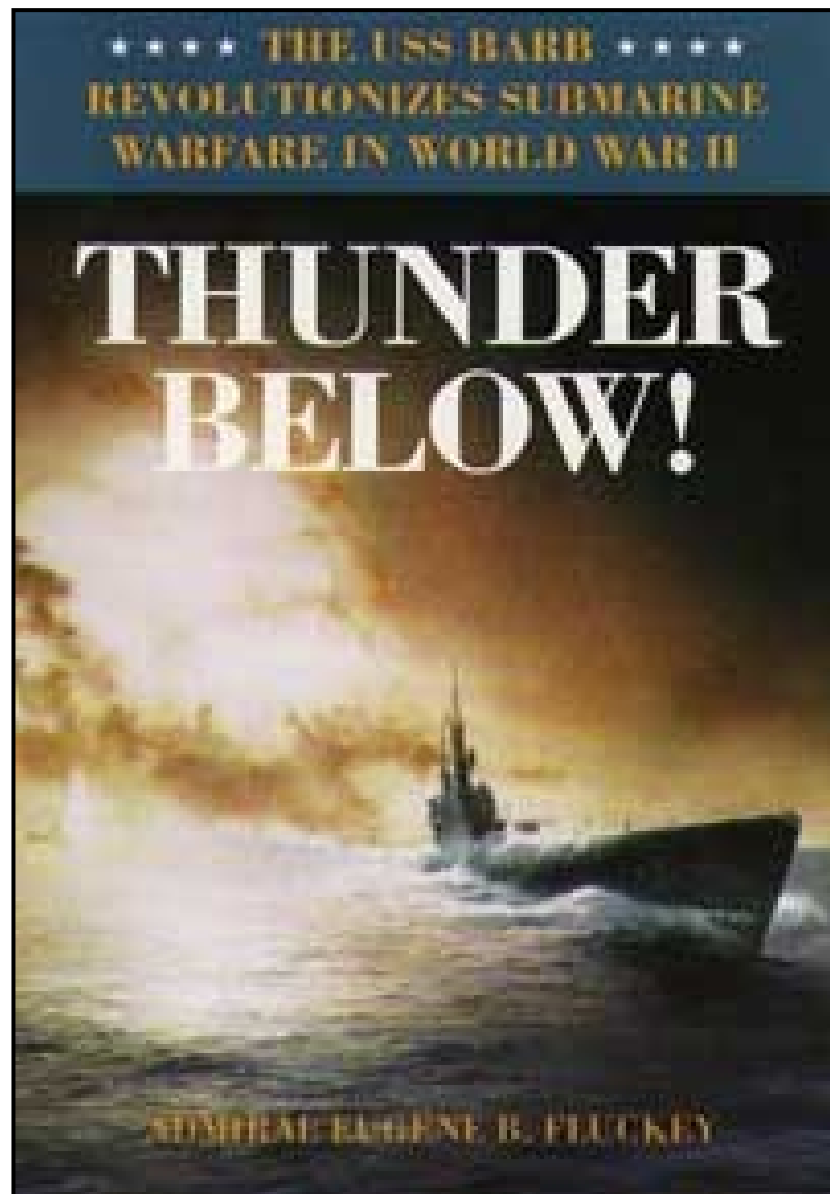


Who is in the room?

- How many:
 - Long-term program participants?
 - How many sailed with us in the fall for the 1st time?
 - How many are just now joining the training program?
- Goal of tonight's presentation is to get us all on the same page...
 - What problems are we seeing
 - What problems are we trying to solve
 - Show that the winter training schedule is targeted to help us solve these problems...



Do you know this man?





Memorize these, and you'll be able
to anticipate DNAS/DDNAS
~~response to issues.~~

1. An inferior program risks producing officers with inferior knowledge, attitudes, and performance that will have to be corrected in the Fleet.

2. An inferior program can result in a serious incident that puts our midshipmen and our entire sailing program at risk.

3. An inferior program puts the reputation of the Naval Academy and the Navy at risk before a public that properly expects the



We Occasionally Make The Front Page...

The Navy Comes Ashore At Wasque

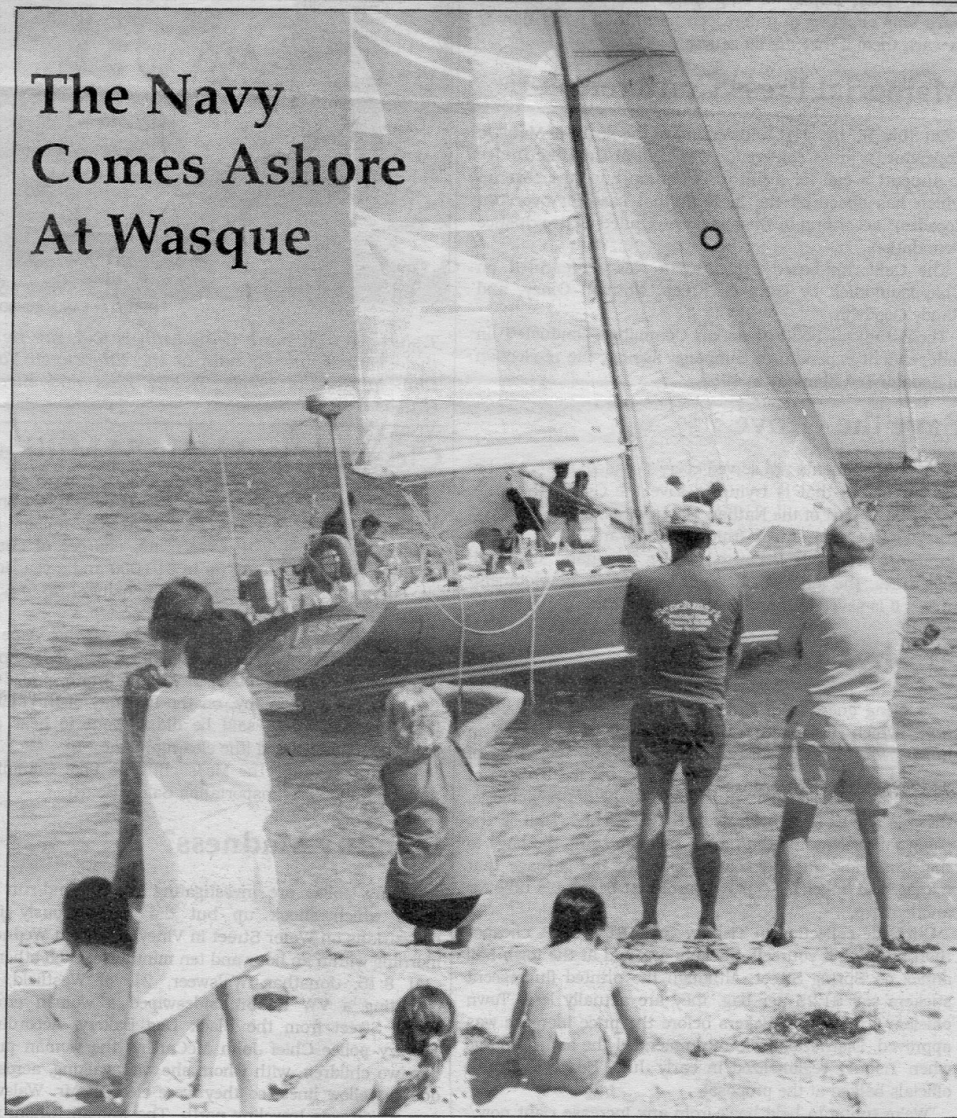


PHOTO BY NELSON SIGELMAN

The sloop Fearless from the Naval Academy at Annapolis, racing in the Edgartown Regatta, ran aground on a sandbar off Wasque Point, and there it stuck. Whoops.

Front Page News

The sloop Fearless from the Naval Academy at Annapolis Ran Aground on a sandbar off Wasque Point, and there it stuck. Whoops.



What Do We Train Midshipmen?

- Leadership and Teamwork
- Watchstanding
- Small boat handling
- Knowledge of and appreciation for the forces of wind and sea
- Relative motion
- Marlinspike seamanship
- Meteorology and oceanography
- Forehandedness and vigilance
- Shipboard organization
- Navy preventative and corrective maintenance systems (3M)
- Navigation (open ocean and coastal piloting)
- Damage control



Note!!!

- Sailing isn't on the list
- We don't teach sailing!!!
- We teach people how to sail...
... Because it underpins safety



So?

After an incident occurs, don't come
and explain:

“That's how I do things on my
boat.”



The CSNTS Program

- We teach deck watch officer skills in the open cockpit of a small boat, inshore and offshore, in all weather.
- What are deck watch officer skills?





What are deck watch officer skills?

- C - Command Presence
- S - Basic Seamanship
- N - Principles & Practice of Basic Navigation
 - Specific emphasis on piloting & deduced reckoning
 - Introduce electronic aides to navigation
 - Radar, Loran C, GPS (if equipped)
 - Introduce celestial navigation
- T - Train the Mids
- S - Squadron integrity to mitigate risk



What are deck watch officer skills?

To ensure safety at sea, the best that science has to offer and that naval organization can provide, must be regarded as an aide and never a substitute for good seamanship, self-reliance, and the sense of ultimate responsibility which are the first requisites in a seaman and naval officer.



What are basic seamanship skills?

- Mooring and unmooring
- Small boat handling
 - Especially in confined areas
 - Sail trim
- Stow for sea
- Boat husbandry
- Ready the vessel for the next underway BEFORE going on liberty



What are basic navigation skills?

- Fix taking
- Fix evaluation
- Minimum cyclic routine
 - Plot, Label, DR... Plot, label, DR...
Plot, Label DR...
- Watch Captain involvement
- Midshipman Navigator involvement
- OIC involvement



Program Construct

Week 1

- Spend 3 days practicing basic boat handling drills
 - Goal: Develop competence in the CREW
- Spend 2 days testing the boat, and sailing after dark
 - Goal: Develop competence in the WATCH SECTION





Program Construct

Week 2

- 5 day transit to Newport
 - Goal: Develop competence in the INDIVIDUAL
 - Hand, reef and steer

Week 3

- 4 day transit home
 - Testing
 - Goal: Build self confidence while operating





Program Construct

- One of the fallacies of our program
 - We train in the benign environment of the Chesapeake Bay to sail offshore





Some Simple Lessons Learned

- Legislate to the least common denominator
 - You must do it this way
 - Standard Operating Procedures
 - You can't go there
 - You can only go here...
 - Bring your foulies
 - Where them when we tell you to
 - Don't sleep topside
 - Wear closed toe shoes
- Standard Operating Procedures
 - Culled from our best collective expertise





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- Admiral Burke...



Assessment Of Navigation Practices

- 3 summers ago we had a lot of navigation related incidents...
- Last 2 winters we've conducted Navigation Training for all personnel
- Interim checks:
 - Graded navigation practicals
 - Observed spring on-the-water training
 - Benchmark – no groundings in our backyard
- Discussed real metric would come during the summer
 - Our on-the-water performance
- So, How did we do?



How We Did

- Observed commencement of Block I
 - No groundings on the “Down & Back”
 - Contributing, revised DNAS OPORDER to refer to this as: **Phase II Crew and Vessel Certification**
- Summer Cruise Summary
 - Reviewed each crew’s charts and chart work
 - Significant improvements observed



However, We're Not Done Yet

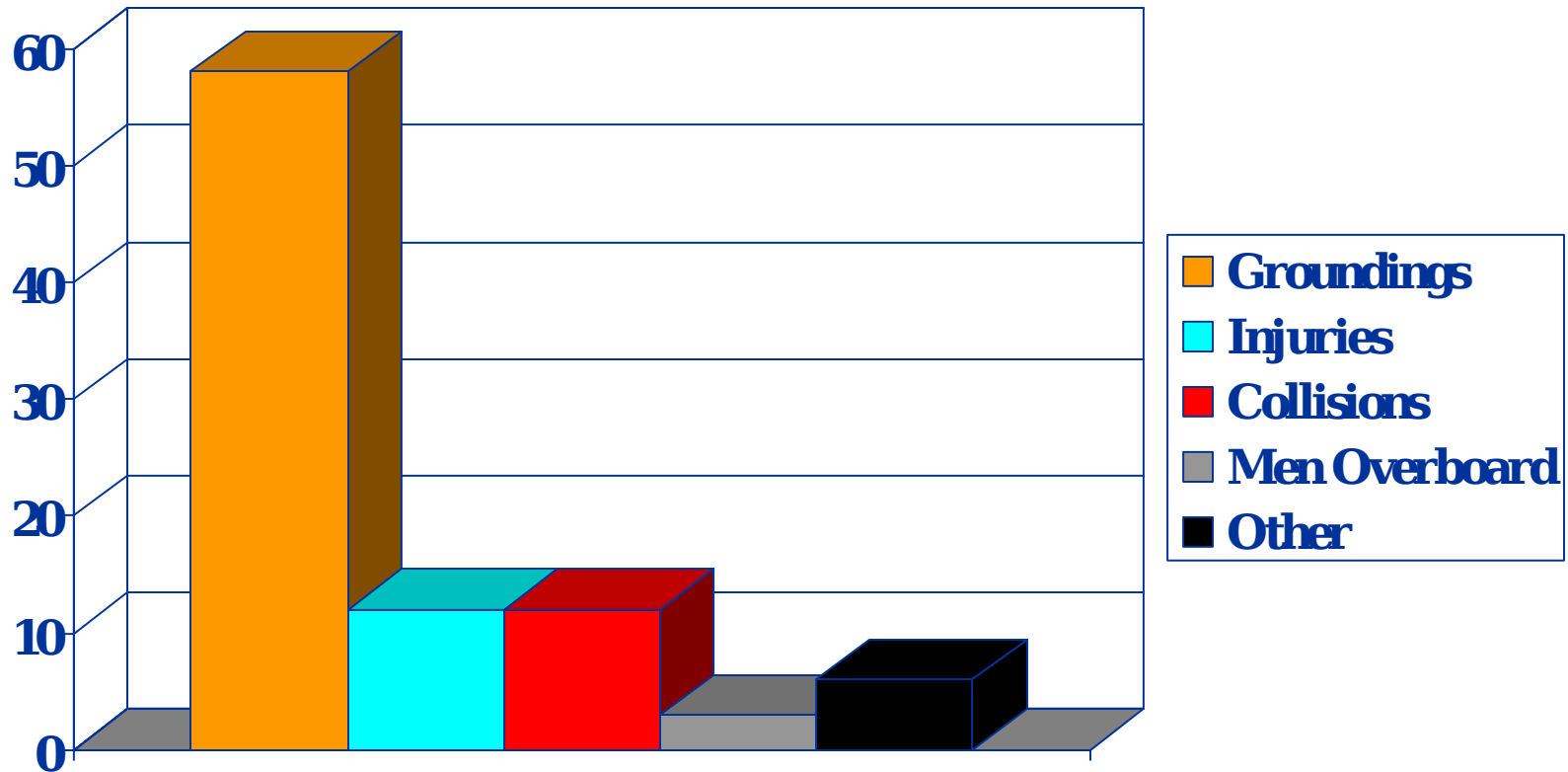
Still, Too Many Incidents Occurred

- DDNAS and Vanderstar Chair carefully reviewed the circumstances of each incident
- Assessment:
 - Still have a widely varying standard
 - Arguably, our most experienced OICs had the incidents
 - Most are long-term participants who had not attended the navigation training



Incident Summary...

1991-2001



In many grounding cases the boat
was where it should have never
been!



Summer 2002 Incident Summary

Block I

- Seasickness requiring MEDIVAC
- Allision with Bridge - Newport Harbor
- Grounding - Coaster's Harbor
- Grounding - Bermuda

Block II

- Accidental Jibe with injury
- Grounding - Delaware River
- Collision - Resulting in loss of a mast
- Fuel contamination - Resulting in loss of engine

Block III

- Shroud failure - No mast failure
- Close aboard contact - Chesapeake Bay
- Grounding - Exit of C&D Canal
- Grounding - Coast of Maine

Block IV

- Grounding - Eastern Bay
- Grounding - Greenbury Point
- Failure to reach



Navigation Related Incident Summary

Summer 2002

- Grounding - Coaster's Harbor
- Grounding - Bermuda
- Grounding - Delaware River
- Grounding - Exit of C&D Canal
- Grounding - Coast of Maine
- Grounding - Eastern Bay
- Grounding - Greenbury Point
- Allision with bridge - Newport
- Allision with buoy - Delaware River (motoring)



Allisions...





Post Critique...

Actual Root Causes

- OIC not setting the right standard
- OIC focused on the wrong set of priorities
- Nav Party not manned when required
- Post mission let down
- Midshipman steering errors

Note:

None of these say “Poor navigation skill on the part of the midshipmen...”



Summer 2003 Incident Summary

Block I

- No reportable incidents

Block III

- Allision with bridge
- Grounding - Southport Marina Entrance

Block II

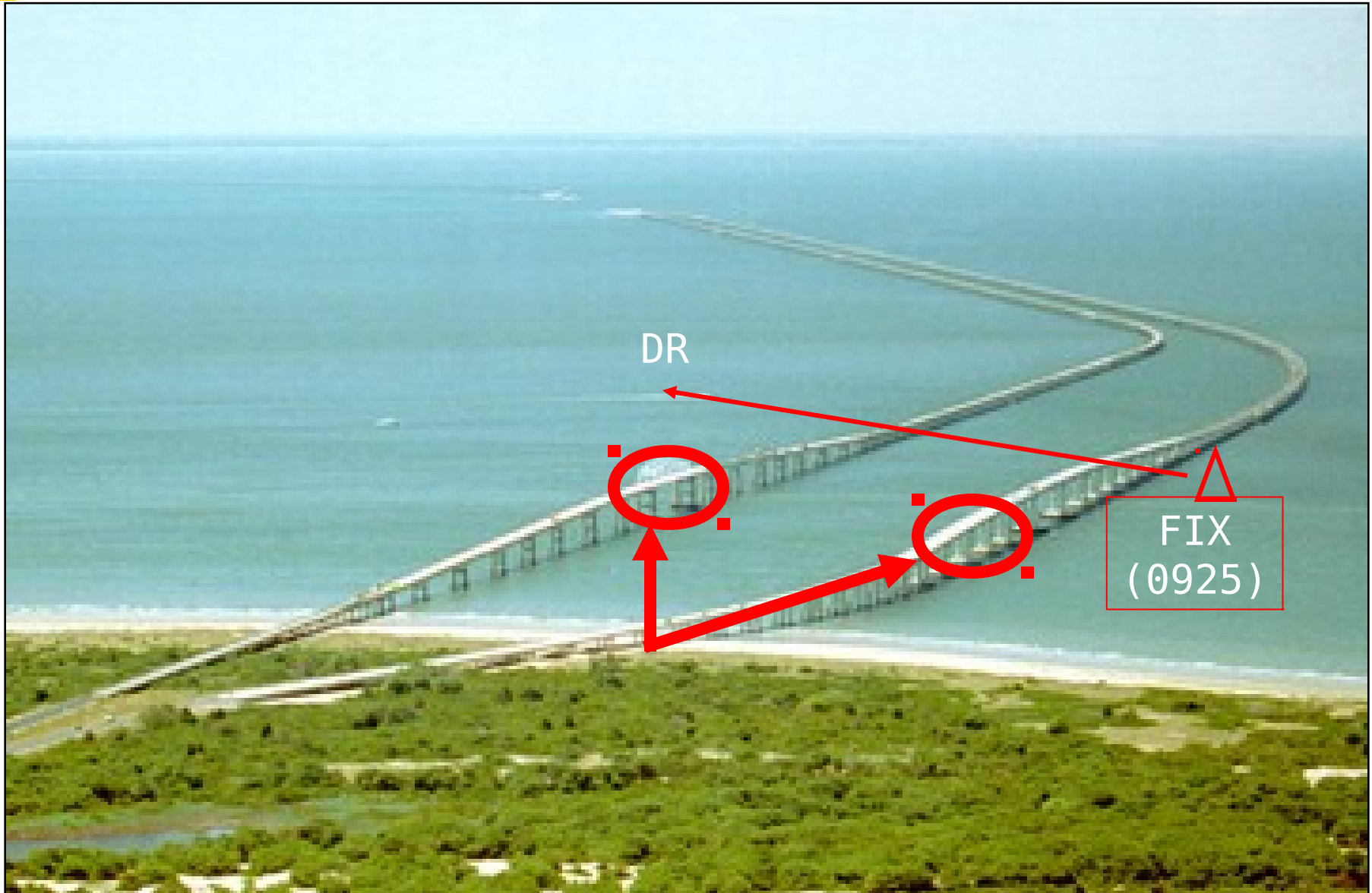
- Grounding - Tolly Point

Block IV

- No reportable incident



Allision With Bay Bridge





The Tunnel Houses





Post Critique...

Actual Root Causes

- OIC's head in the boat
- OIC judgment

Note:

None of these say “Poor navigation skill on the part of the midshipmen...”

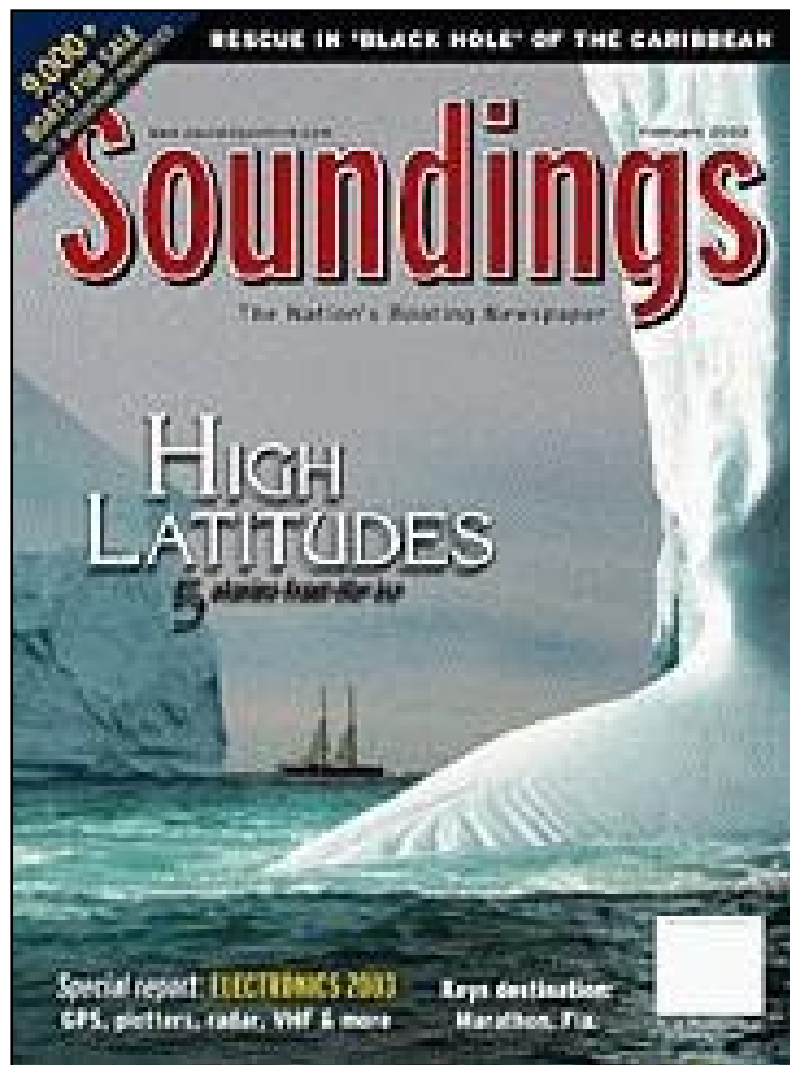


Do you recognize these people?





Have You Seen This Article???



Kennedy schooner finds a sandbar

By JoAnn W. Goddard STAFF WRITER

Sen. Edward Kennedy's vintage schooner, Mya, was slightly damaged en route to winter storage after going up on a sandbar near Cape Cod's Cold Storage Beach. The 50-footer got hung up on a bar just outside the breakwater, near Dennis, Mass., Dec. 1, according to Dennis harbormaster Edward Goggin Jr.

A two-man delivery crew had taken Mya from her home port of Hyannis (Mass.) Harbor and through the Cape Cod Canal, bound for Northside Marine on Sesuit Harbor in East Dennis. Winds were blowing north/northwest at 40 to 50 knots, and rough seas made transiting the shallow area difficult, according to Goggin.

The schooner grounded in the sand about 150 feet from shore. The crew was able to walk ashore. Initial attempts to free Mya were unsuccessful, prompting fears that the battering waves would damage the wooden schooner.

Work crews pumped water from the hull and stabilized her with a line run from the schooner to shore. A small

crowd gathered the following morning at high tide to watch as the sailboat was towed off the bar. Mya was taken to the marina.

There were a few scrapes and at least one small hole in the hull, says Goggin, adding that there appeared to be no major damage to the keel or hull.

Mya has been in the Kennedy family for about 20 years, according to Kennedy's staff. She is a familiar sight



Sen. Edward Kennedy's 50-foot schooner, Mya, ran aground Dec. 1 off East Dennis, Mass.

each year in races around Cape Cod and the islands, including the annual Figawi race from Hyannis to Nantucket and back. Mya recently had taken members of the Kennedy family on their traditional Thanksgiving cruise.

An avid sailor, Kennedy was notified of the grounding. Witnesses say he made a brief appearance to check his boat. ■



What channel do you use?

- VHF channels
 - 13 Bridge to bridge
 - 16 International hailing and distress
 - 9 North of Tom's River New Jersey
 - 82A Santee Basin Control
 - 12 YP Basin Control
- How do you hail?
 - Don't affiliate us...



One of our biggest risks...



Contact Management & Avoidance



One of our biggest risks...

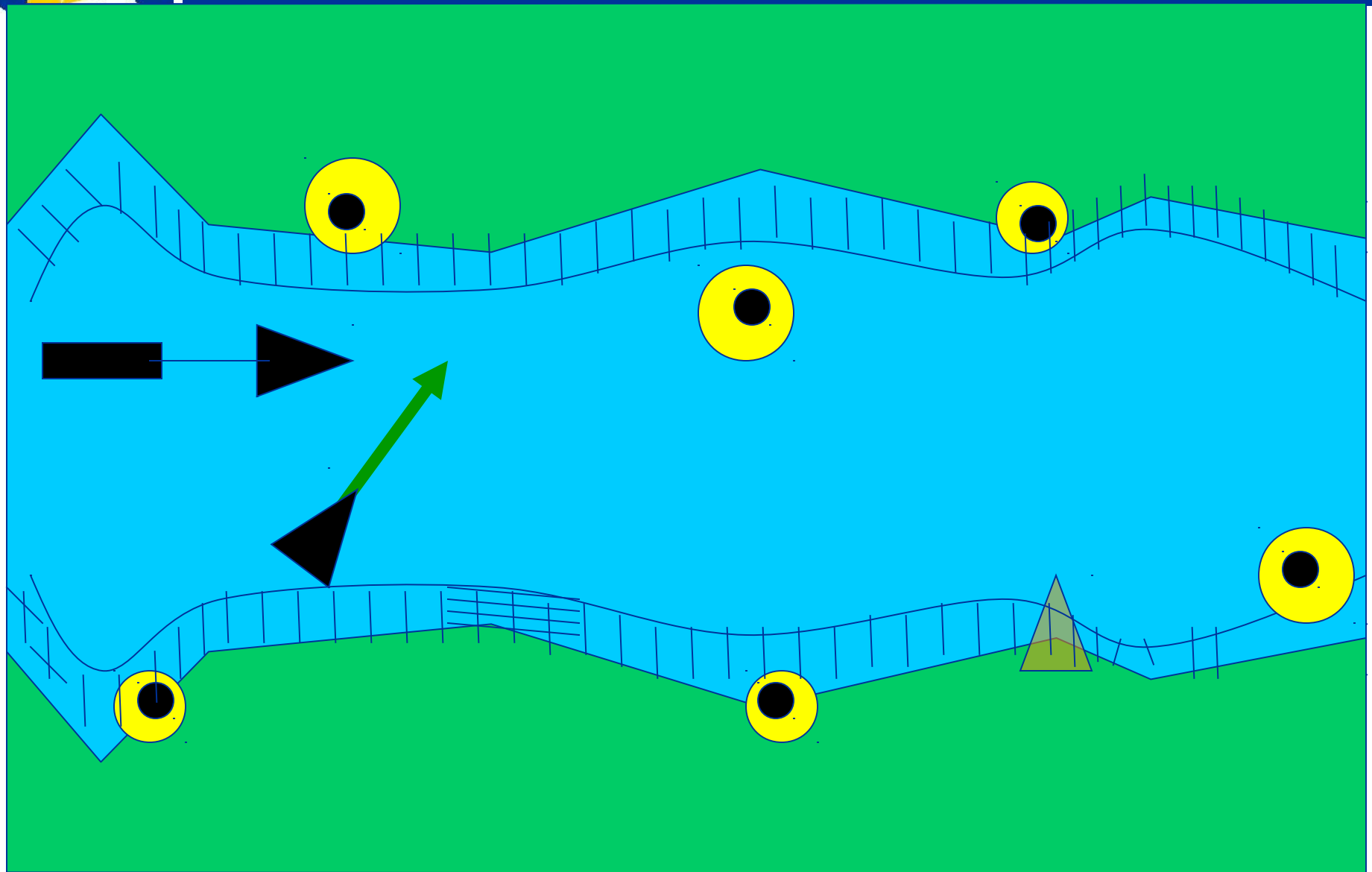




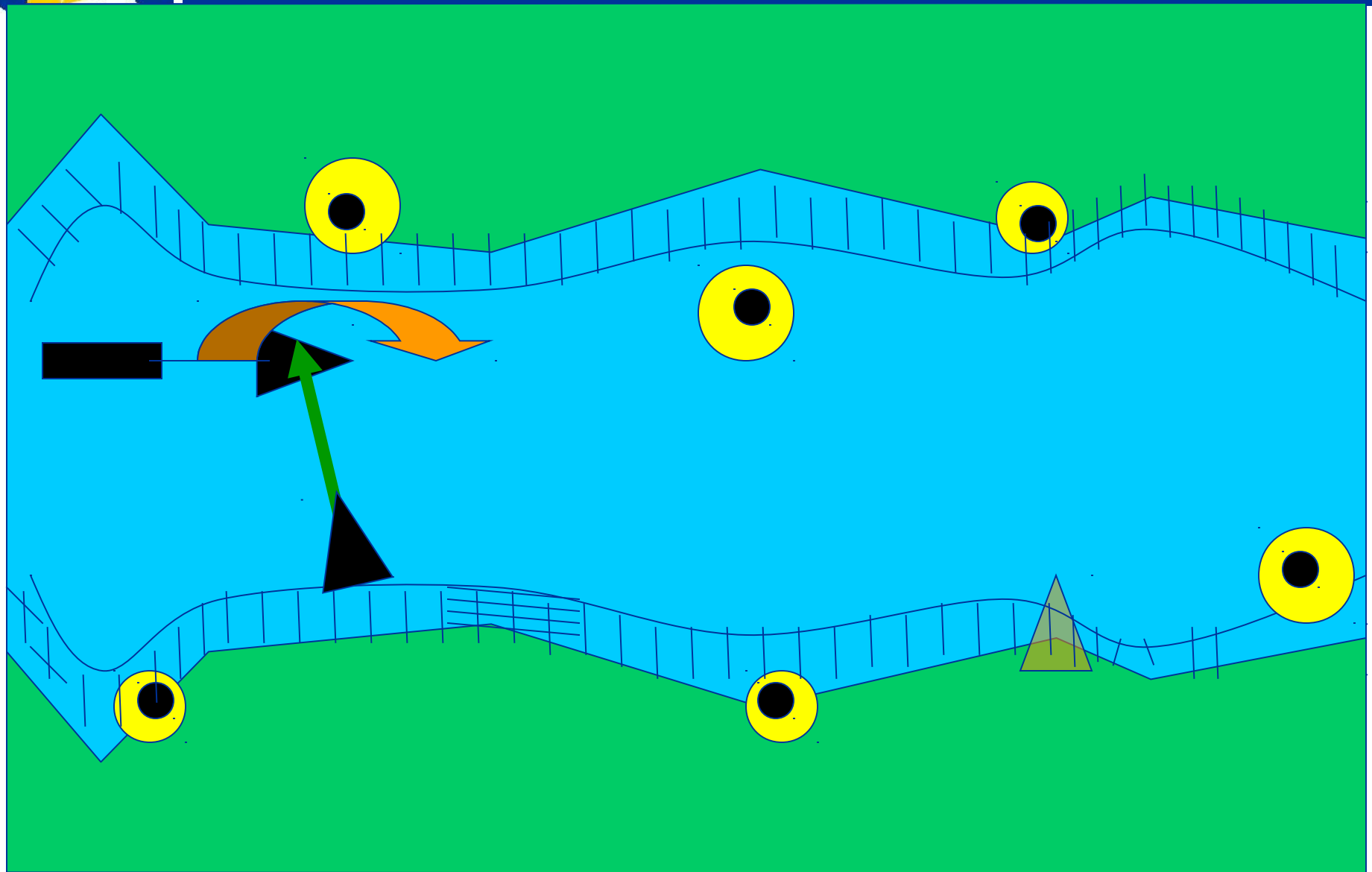
One of our biggest risks...



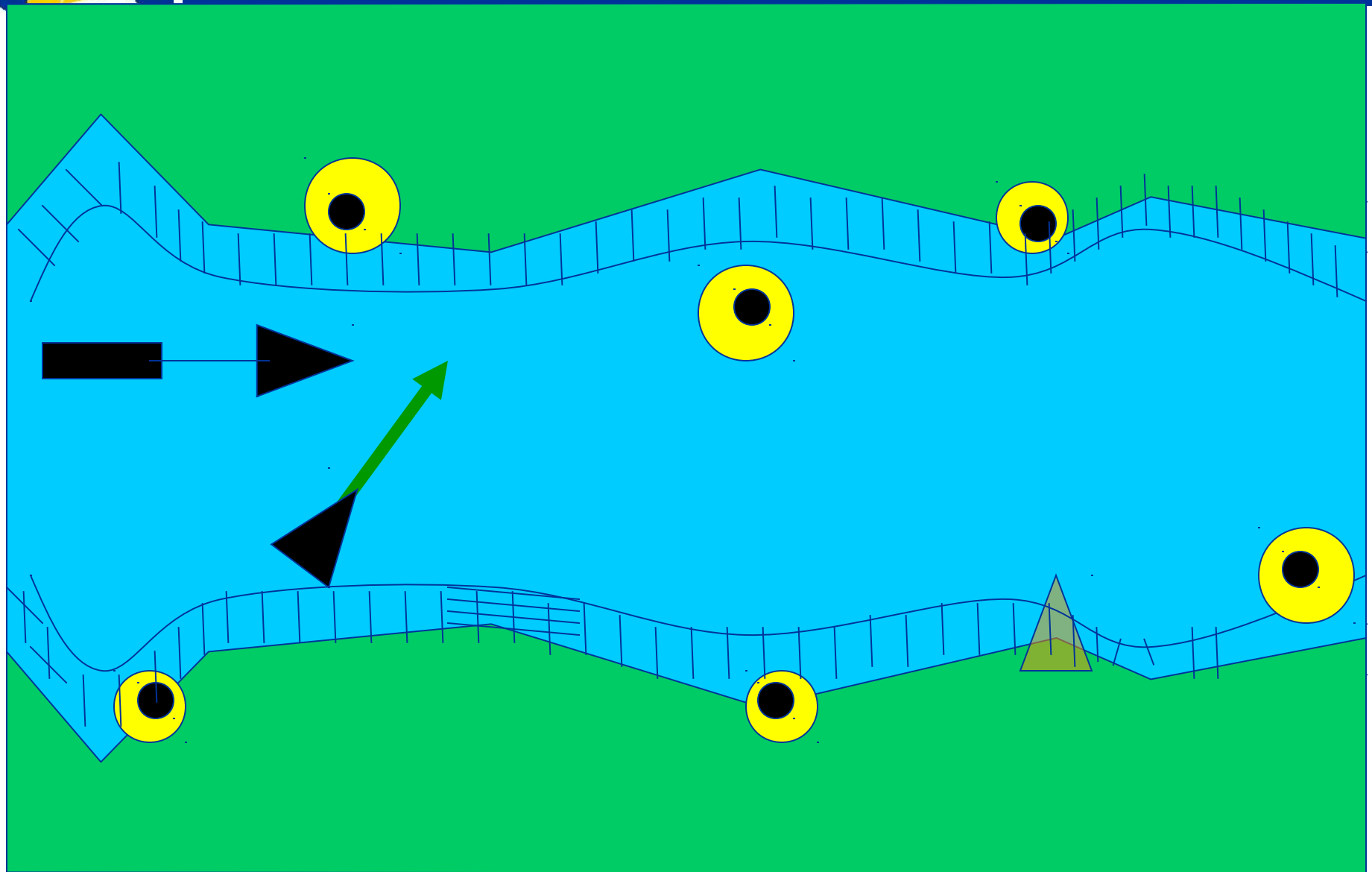
Near Collision With A Tug



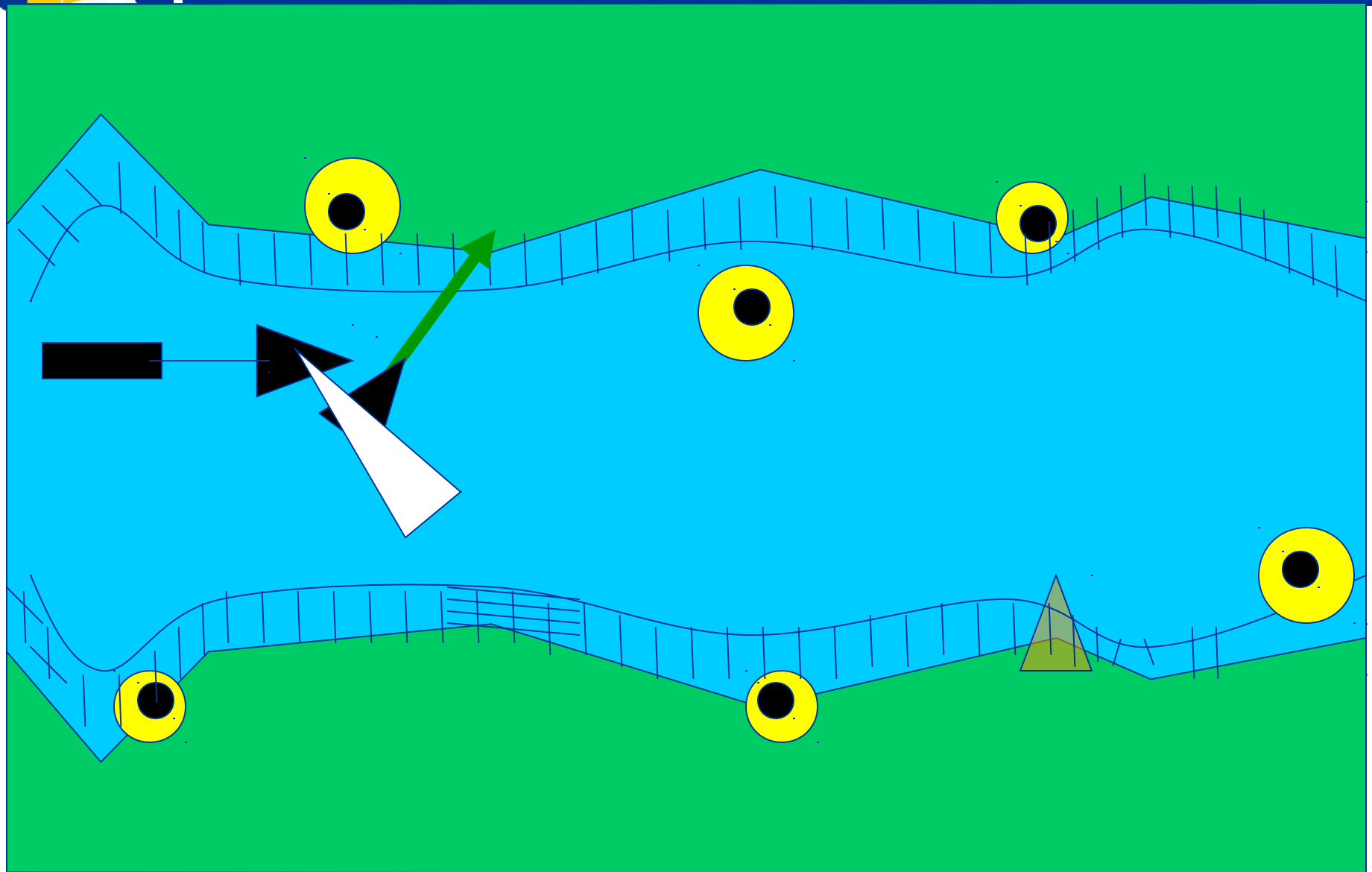
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Near Collision With A Tug



Near Collision With A Tug



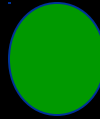


American Promise





Encounter with the Borg





Protect Your Ability To See Clearly



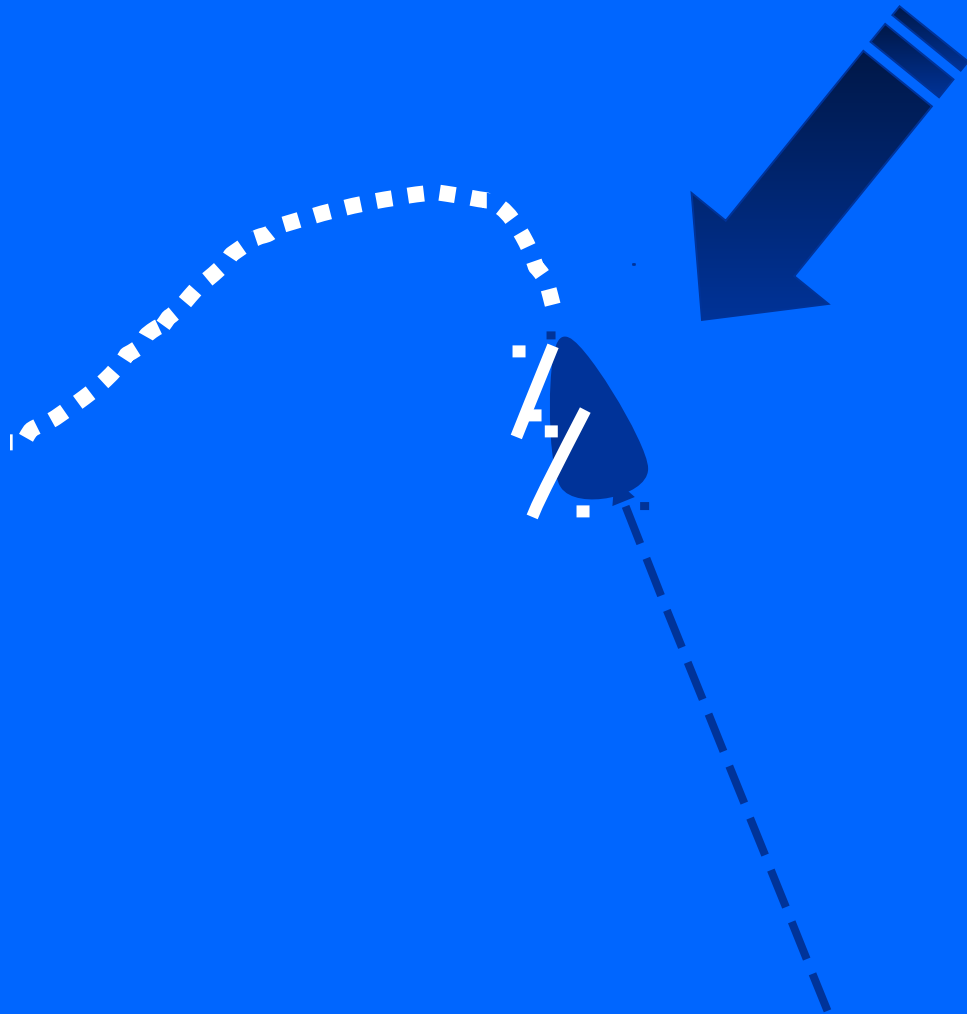


Memorize the pot settings...





Accidental Jibe... Resulting in Injury

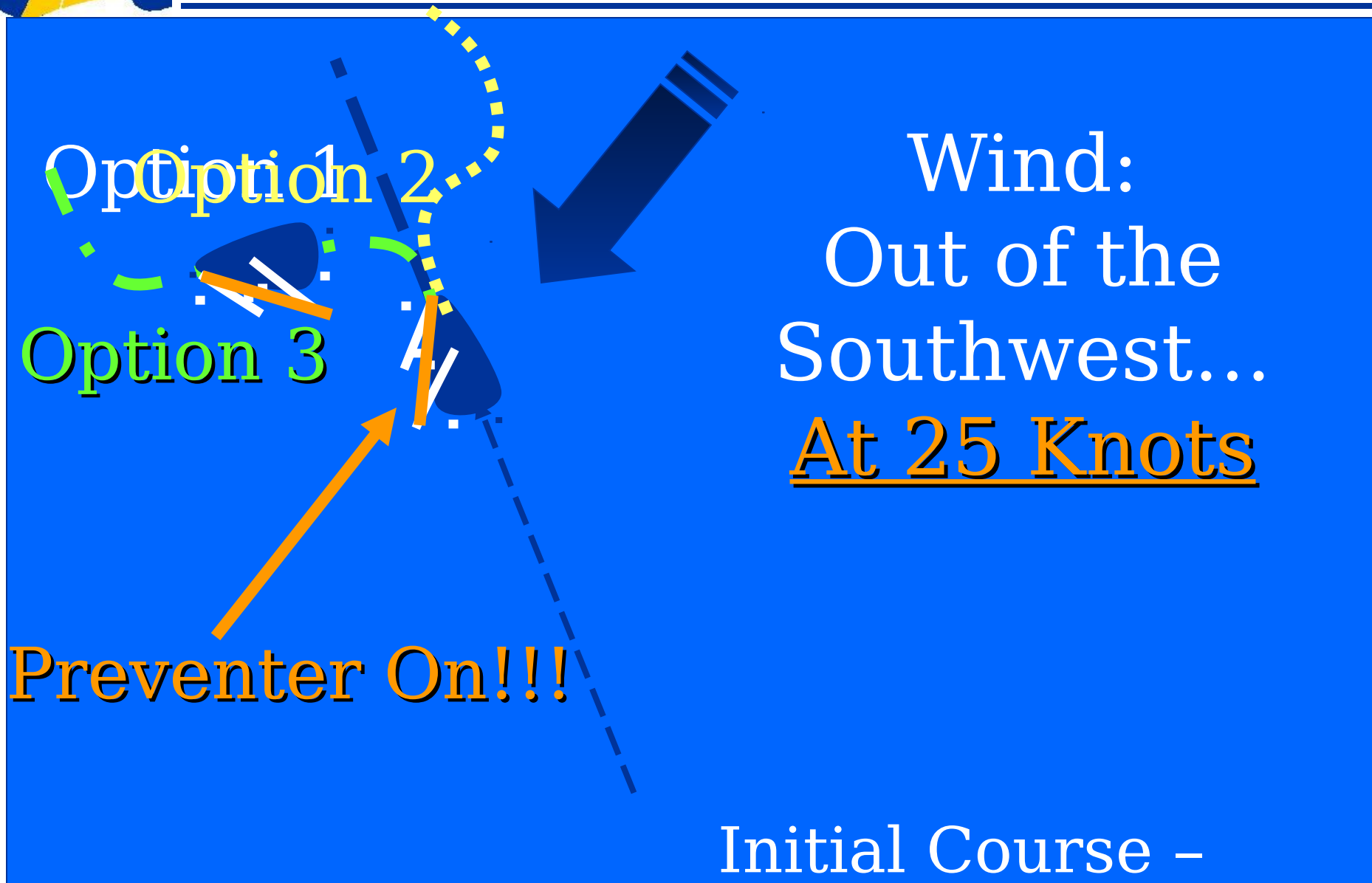


Wind:
Out of the
Southwest...
At 25 Knots

Initial Course –



A Few Better Options...





Pop Quiz

- What does a preventer prevent?
- What is this device called?
- How do you rig a preventer?
- What does it mean to be sailing “By the lee”?

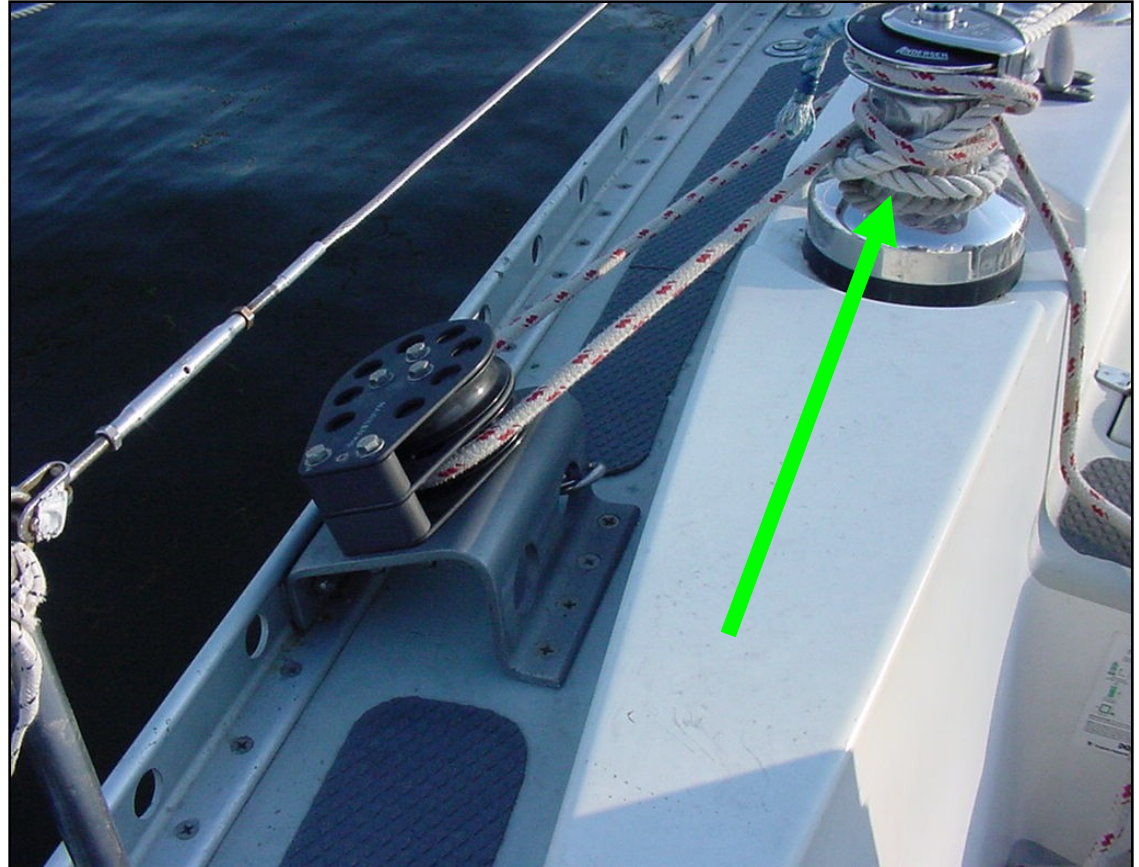
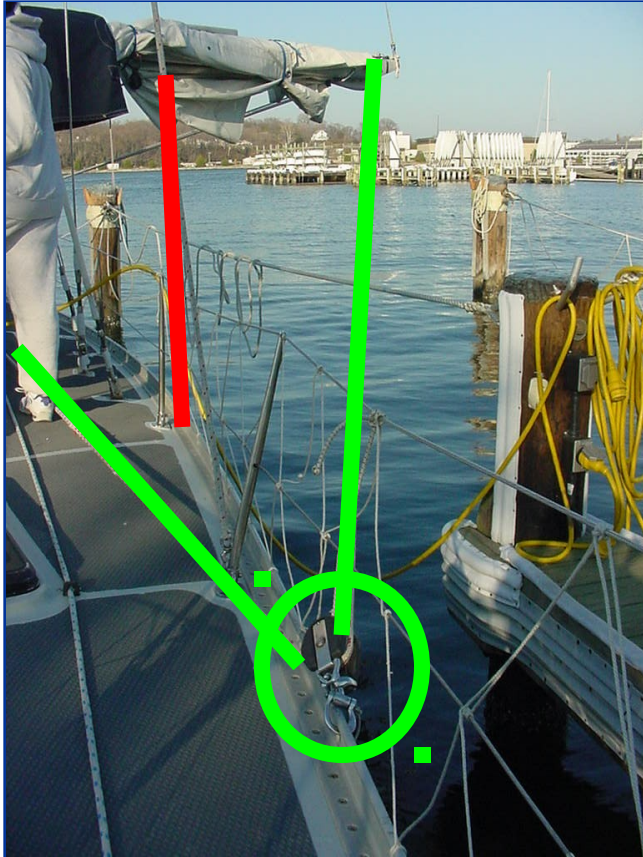


The Preventer...





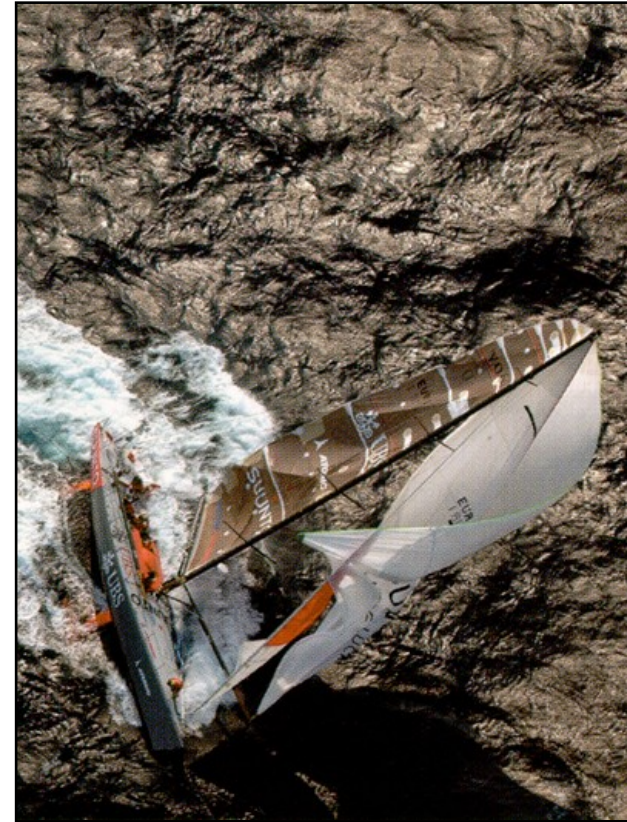
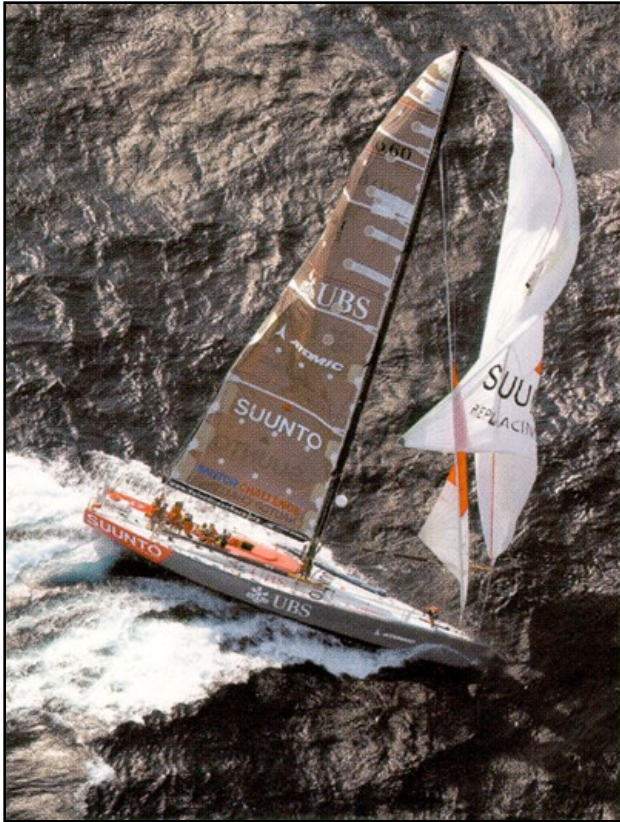
The Preventer...



- End Boom System
- Turns on the drum, not just taken to the end
- Use of shackles?



Why turns on the winch?





Why turns on the winch?





Single Biggest Cause of Injury?

ACCIDENTAL JIBES

- Wind shift
- Sea state
- Helmsman steering errors





Accidental Jibes

- Not viewed by some small boat sailors as a “BIG DEAL”
- Some have never experienced a real accidental jibe
- Simply talking about accident statistics, while sobering, doesn't work

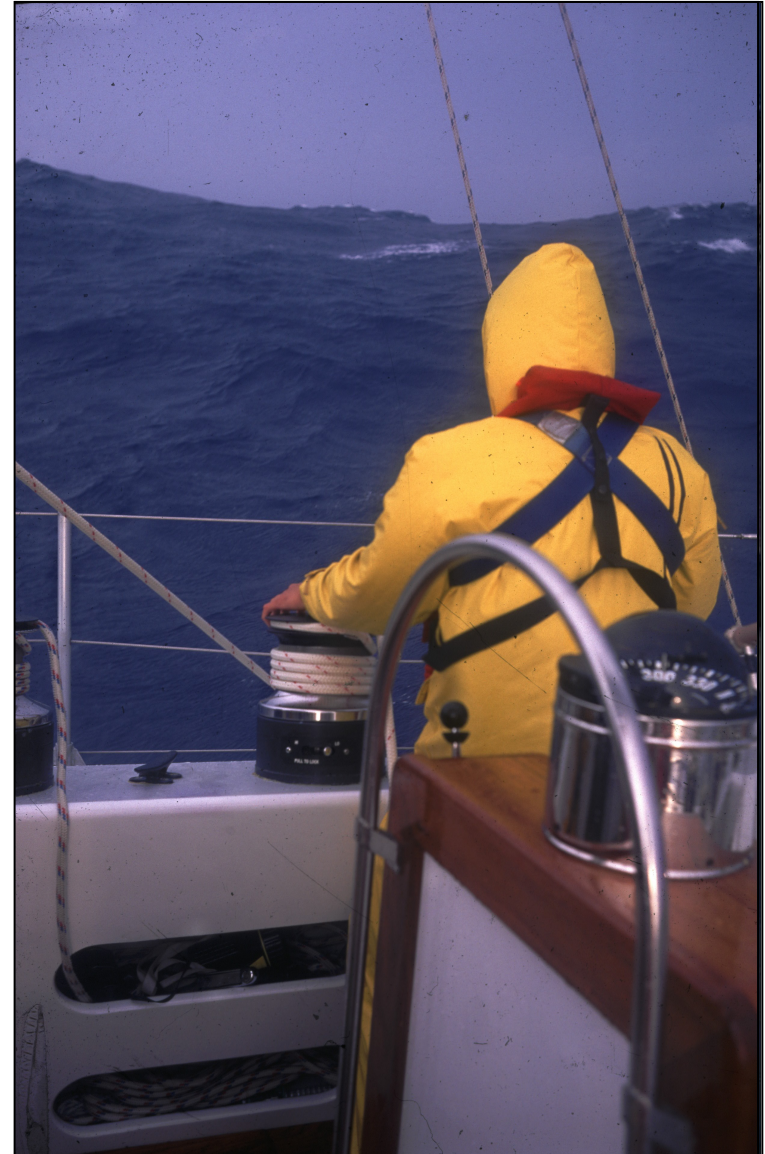




2nd Biggest Source of Injury

SEA SICKNESS

- Tablets don't work
- Pscop patches
 - Be careful
- Most get their sea legs
- Stay hydrated
 - Avoid colas





The Power Of Staying Hydrated...





Use Of Safety Equipment

- Test the gear by deploying and using it!!!
- Know your vessel





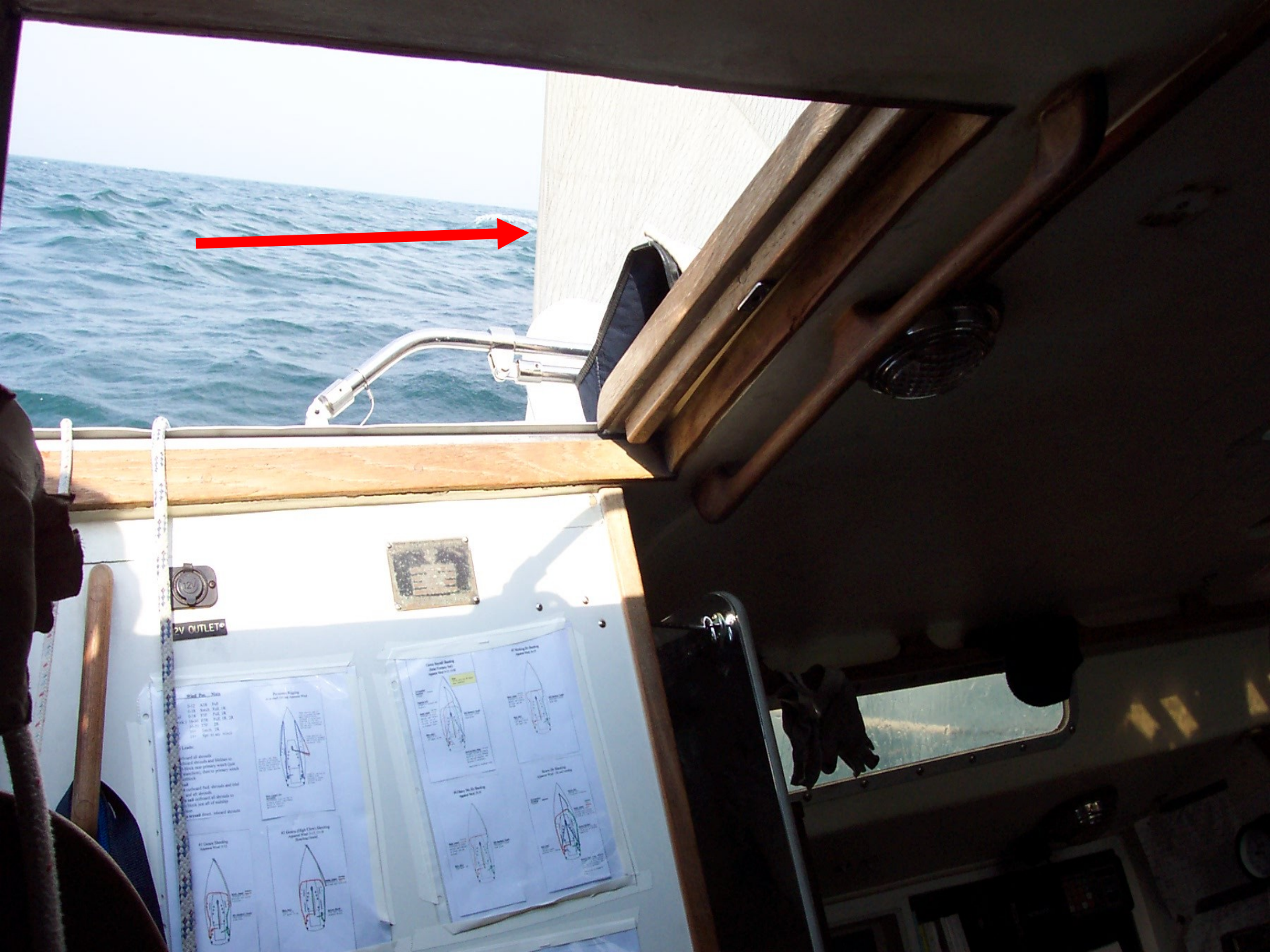
Integrate weather forecasting with sail combinations





Is this right?





A man with short blonde hair, wearing a bright yellow raincoat and a red life vest, is smiling while steering a boat. The boat is on a choppy sea with white-capped waves. In the background, a large, dark, rocky island or headland rises from the water. The boat's deck is visible, with various equipment including a silver metal pot on the steering console, a yellow bag with the word 'MUSTISO' on it, and a red life preserver hanging on the right. Ropes and rigging are visible on the left side of the frame.

Questions?